

USER MANUAL

SATEL I-LINK PC Pro

Routing program for Point-to-Multipoint Operation

1 TABLE OF CONTENTS

1	TABLE OF CONTENTS.....	2
2	GENERAL.....	4
2.1	ABOUT SATEL I-LINK PC PRO.....	4
3	INITIAL SETTINGS.....	5
3.1	SATELLINE RADIO MODEM AND SATEL I-LINK 100 CONFIGURATIONS	5
3.1.1	Baud Rate	5
3.1.2	Protocol.....	5
3.1.3	Address.....	5
3.1.4	Connections.....	5
4	HOW TO START USING OF THE PROGRAM	6
4.1	QUICK START	6
4.1.1	Operation Window.....	6
4.1.2	COM-Port.....	6
4.1.3	Slave address.....	6
4.2	SENDING DIGITAL DATA.....	6
4.3	SENDING ANALOG DATA.....	6
5	EDIT MODES.....	7
5.1	HOW TO SELECT FUNCTIONS	7
5.2	SET NAME.....	7
5.3	SET SLAVE ADDRESS.....	7
5.4	SAFE MODE SETTINGS (DIAGNOSTICS)	7
5.4.1	Normal.....	7
5.4.2	Alarm only.....	7
5.4.3	Ports Low.....	7
5.4.4	Ports High.....	7
5.4.5	Defined Ports.....	7
5.4.6	Safe Mode Time.....	7
5.5	SET UPDATE TIME	8
5.6	SET UPDATE MODE (CONCERNS ONLY RECEIVED DATA)	8
5.6.1	Manual update.....	8
5.6.2	Automatic update.....	8
5.6.3	Time based update.....	8
5.7	SET LAYOUT STYLE	8
5.8	SET UNIT CONVERSION	9
5.9	CONNECTION TYPE.....	9
5.10	SHOW SLAVE VERSION.....	9
5.11	LOAD SETTINGS.....	9
5.12	SAVE SETTINGS.....	9
5.13	CLOSE (CLOSE THE SLAVE).....	9
5.14	CLOSE (CLOSE THE I-LINK PC PRO PROGRAM)	9
5.15	SAVE ALL SLAVES	10
5.16	LOAD ALL SLAVES.....	10
5.17	EDIT	10
6	FILE-MENU.....	11
6.1	NEW SLAVE.....	11
6.2	LOAD SLAVE(S).....	11
6.3	SAVE ALL SLAVES	11
6.4	CLOSE ALL SLAVES	11
6.5	LOAD WORKSPACE.....	11
6.6	SAVE WORKSPACE	11
6.7	EXIT	11
7	MASTER CONFIG-MENU	12
7.1	COM-PORTS 1...8.....	12
7.1.1	Open new Com-Port.....	12

7.1.2	How to use Com-Ports	12
7.2	SET MASTER ADDRESS	12
7.3	SETTINGS	13
7.3.1	Auto Boot	13
7.3.2	Activation	13
7.4	ALARM	13
7.4.1	Activation	13
7.4.2	Resend Count	13
7.4.3	Alarm Time	14
7.4.4	Alarm Attention Type	14
7.4.5	Alarm List Window	14
7.5	LAYOUT	14
8	WINDOW-MENU	15
8.1	SHOW ACTION LOG	15
8.1.1	Save Log	15
8.1.2	Clear Log	15
8.1.3	Clear Log File	15
8.1.4	Stream to file	15
8.2	SHOW ALARM LIST	16
8.3	SHOW ROUTE LIST EDITOR	16
8.4	SHOW CHANNEL SELECTOR	16
8.4.1	Change Master Channel	17
8.4.2	Check Current Channel	17
8.4.3	Change To Selected Channel	17
8.4.4	Fast Scan All Channels	17
8.4.5	Deep Scan All Channels	17
8.4.6	Ping Slaves	17
8.4.7	Find Slaves	17
9	ROUTING	18
9.1	START	19
9.1.1	Route List Editor	19
9.1.2	New Route	19
9.1.3	Edit	20
9.1.4	Delete	20
9.1.5	Clear All	20
9.1.6	Save as Text	20
9.1.7	Close	20
9.1.8	Reminder	20
10	INDICATORS	21
10.1	ADJUSTABLE SETTINGS	21
10.2	BOTTOM BAR, SLAVE	21
10.3	BOTTOM BAR, MASTER	21
11	FACTORY SETTINGS AND ACCESSORIES	22
11.1	ACCESSORIES	22
11.1.1	Interface Cables for SATEL I-LINK 100	22
11.1.2	Extension units I-LINK 200 and 300	22
12	CONNECTION EXAMPLE	23

2 GENERAL

2.1 ABOUT SATEL I-LINK PC Pro

SATEL I-LINK PC Pro is a Point-to-Multipoint program that can be used to drive several SATEL I-LINK 100 slaves connected to SATELLINE radio modems. The maximum number of slaves is 255. The program makes it possible to operate systems, which are connected to the I/O -ports, to change values, monitor the radio link and Multipoint operation etc.

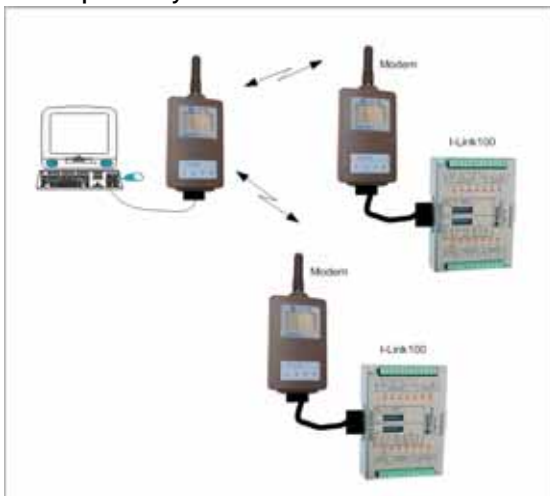
With the routing feature any of the slave's digital/analogue Input can be routed to any digital/analogue Output. You can even route any one of the inputs to several or all outputs. This feature is useful for example emergency multi-alarm e.g. routing is done by the PC-program, which virtually connects the Inputs to the defined Outputs. The Input can be connected to the any Output or to the same I-LINK 100...300. You may thus use this as switch isolator, current converter and voltage converter from 12-24 VDC to 230 VAC etc.

Analogue Inputs can also be routed to Analogue Outputs.

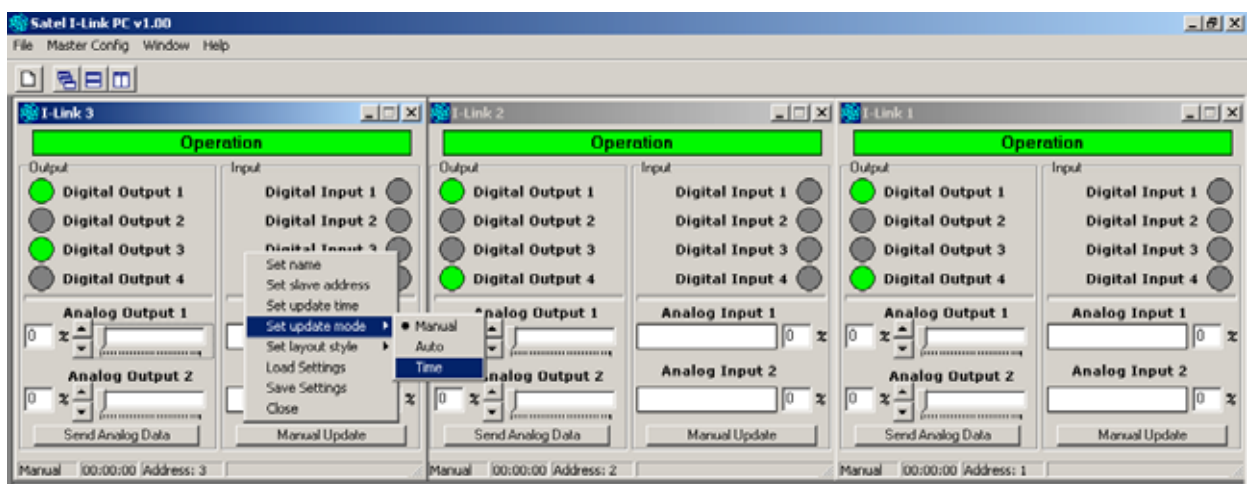
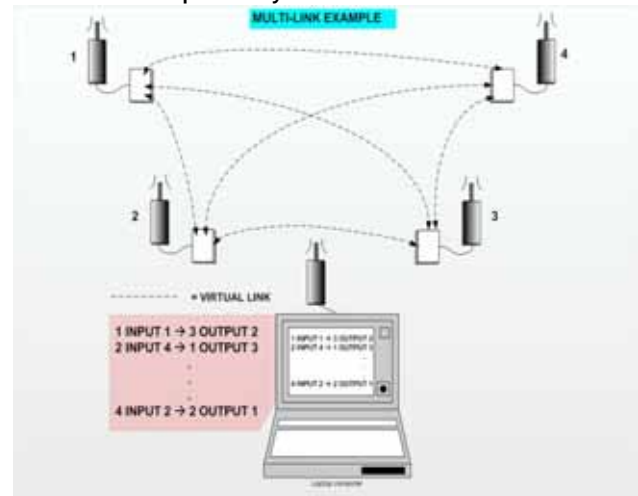
Minimum requirements:

PC 286, SATELLINE radio modem, SATEL I-LINK100, I-LINK PC Pro PROGRAM
COM Port baud rate min. 9600 b/sec. Windows 95, 98, 2000, XP.

Small Multipoint system



Routed Multipoint system



3 INITIAL SETTINGS

3.1 SATELLINE RADIO MODEM AND SATEL I-LINK 100 CONFIGURATIONS

3.1.1 Baud Rate

Set the baud rate of the SATELLINE radio modem. Check that the other parameters are "N-8-1". Set the baud rate of the SATEL I-LINK 100 by using the BAUD DIP -switches.

00=2.4, 10=4.8, 01=9.6, 11=19.2 (Check that the SATELLINE radio modems have the same settings).

3.1.2 Protocol

Set the SATEL I-LINK 100 PRTCL switch to the Multipoint position, P-to-MP.

3.1.3 Address

Set personal addresses to all SATEL I-LINK 100 slaves by using the ADDRESS DIP-switches.

3.1.4 Connections

Before connecting the device to a power supply, first connect all inputs and outputs. There is more information about connections at the end of the manual.

4 HOW TO START USING OF THE PROGRAM

4.1 QUICK START

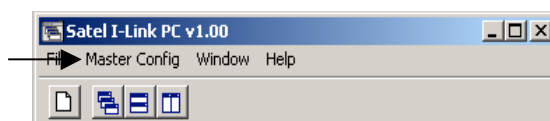
Open the SATEL I-LINK PC Pro program.

4.1.1 Operation Window

Open a new operation window(s) from the toolbar list by clicking the  -button on the upper left corner, or Open by clicking on the File Menu, opening "New Slave". Open own window for all Slaves. Note, that the maximum number of Slaves in this program is 255. Arrange the display by using the Windows Menu or the  -buttons.

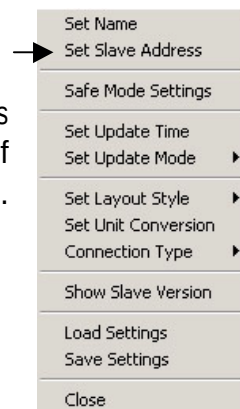
4.1.2 COM-Port

Open COM- port from the toolbar list by clicking "Master Config" – "Port1...4" and "Open". Select COM-port and set the same parameters as you have set for the SATELLINE radio modem and SATEL I-LINK 100, and press OK. If there are no COM -port settings, the program will automatically ask for them.



4.1.3 Slave address

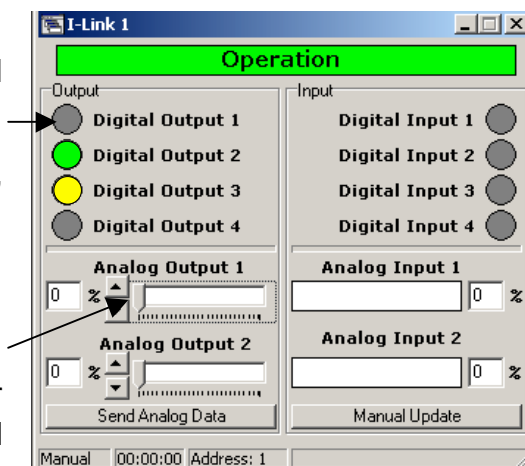
When the new slave is opened, the program will automatically set the address for it. To make manual adjustments, click anywhere on the empty grey area of the slave window using the right mouse button, and select "Set Slave address". Insert the new address, and then press OK.



The basic settings have now been established and the SATEL I-LINK PC Pro is ready to send and receive.

4.2 SENDING DIGITAL DATA

To change the slave's digital value, click the gray "Digital Output" circle dot. During the transmission the dot is yellow. When the transmission is done, the circle will change to green. If the transmission fails, the "Operation" signal will turn red.



4.3 SENDING ANALOG DATA

Move the "Analog Output Cursor" or change the number at the side. Press "Send Analog Data" and the levels will be sent to the Slave's "Analog Output".

If the transmission fails, the "Operation" signal will turn red. Note that "Analog Output" can only be sent by pressing "Send Analog Data".

5 EDIT MODES

5.1 HOW TO SELECT FUNCTIONS

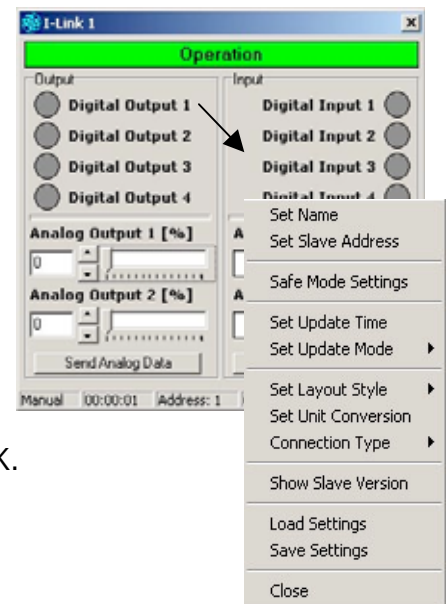
Click anywhere on the empty grey area of the slave window using the right mouse button. This will open a new window where you can select the desired function.

5.2 SET NAME

The default name I-Link1 can be changed using this function. Select "Set Name" – type the new name and press OK.

5.3 SET SLAVE ADDRESS

Select "Set Slave address". Insert the new address and press OK.



5.4 SAFE MODE SETTINGS (diagnostics)

The Safe Mode Setting defines what should be done to the slave's outputs, if the slave has not been contacted by the master in the pre-set Safe Mode Time. This function acts like diagnostics to the slave units.

5.4.1 Normal

The outputs will remain their current position.

5.4.2 Alarm only

Alarm LED will be lit and the outputs will remain their current position.

5.4.3 Ports Low

Alarm LED will be lit and the outputs will go OFF.

5.4.4 Ports High

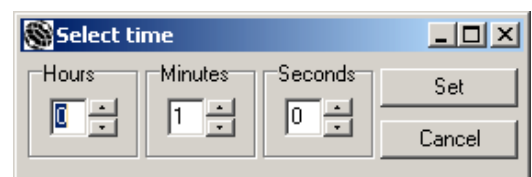
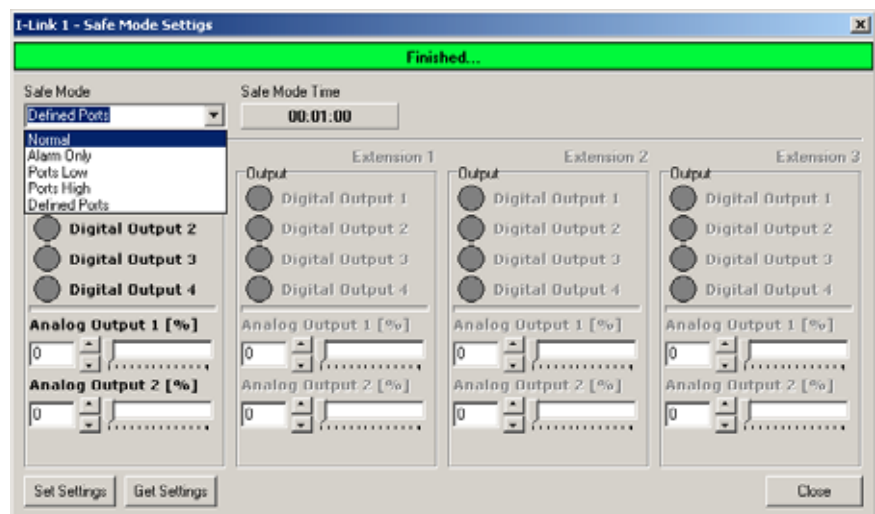
Alarm LED will be lit and the outputs will go ON.

5.4.5 Defined Ports

Alarm LED will be lit and the outputs will go to pre-set state.

5.4.6 Safe Mode Time

The pre-set time defines the time when the slave will make the above pre-set actions, if the slave has not got been contacted by the master. The minimum increment time is 1 minute.



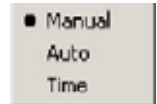
5.5 SET UPDATE TIME

Defines the interval how often the master contacts the slaves. The time can be from 1 second up to ...24 hours. Select "Set Update Time", set the time and press SET.

5.6 SET UPDATE MODE (concerns only received data)

The update mode defines the way how the master contacts the slaves.

When this action happens, the master sends a GET command (asking only for slave's status) to the slave and the slave answers with its status. The GET command **does not** update any of the slave's Digital or Analogue Outputs. The GET is also an update to the slave's diagnostics timer. There are 3 different modes to receive Data; Manual, Automatic or Time. The settings can be done separately for each slave.



5.6.1 Manual update

Select "Set update mode", and press "Manual". Using this setting, the slave information for the chosen window is updated only when "Manual Update" circle-dot in the slave window is pressed.

5.6.2 Automatic update

Select "Set update mode", and press "Auto". Using this setting, the slave information for the chosen window is updated with maximum speed. If only one slave has an auto setting, the update speed is about 1 second. Every new slave with auto setting increases the update time about 1 second.

NOTE!

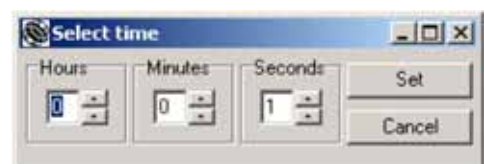
Use this setting for the slaves only, if it is absolutely necessary. The auto setting makes maximal use of the radio frequency. The continuous reservation of radio frequency is not generally recommended.

5.6.3 Time based update

For a time based update select "Set update mode" and press "Time", select the time and press SET.

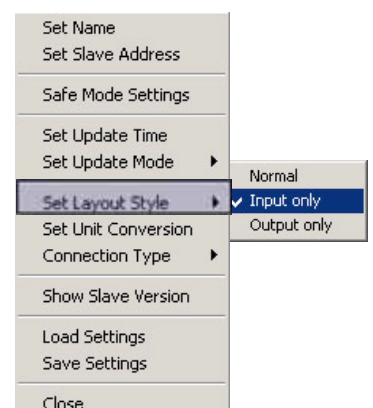
The time interval can be from 1 seconds up to 24 hours.

When this mode is used, the update information from the slave to the chosen window will be in accordance with the "Select time" setting.



5.7 SET LAYOUT STYLE

The inputs and outputs can be seen in the window simultaneously or separately, depending on the settings. Click anywhere on the empty grey area of the slave window using the right mouse button, select "Set layout style" and set it for "Normal", "Input only" or "Output only".



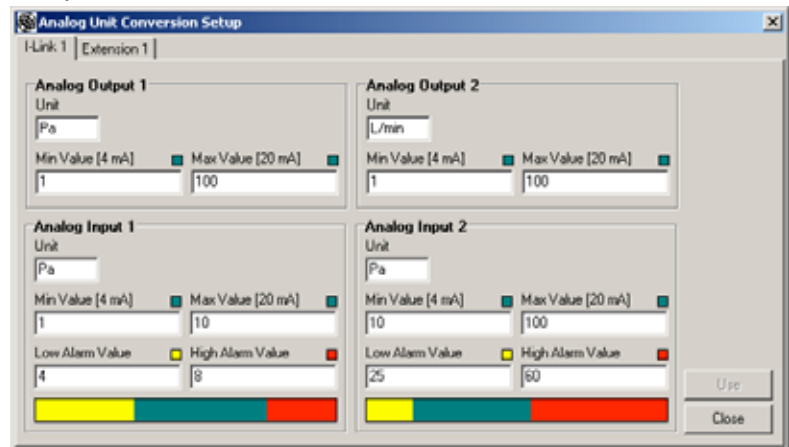
5.8 SET UNIT CONVERSION

As default the analog input and output values are shown as % and the scaling is from 0 to 100%.

The default unit “%” can be changed to any other unit, maximum 5 characters. The value can also be re-scaled by setting the minimum and maximum values that the sensor and device applies. Low and high alarm warning values can be set separately for each analogue input.

Select “Set Unit Conversion” and click. Set new units and values and execute the function by clicking “Use” button.

Pressing the “Close” button closes the window.



5.9 CONNECTION TYPE

Current slave can be changed to use any other possible Port in the system.

5.10 SHOW SLAVE VERSION

This function will show the software version of the I-LINK 100.

5.11 LOAD SETTINGS

Opens saved settings from the file. Select "Load Settings", browse for the file and press OK.

5.12 SAVE SETTINGS

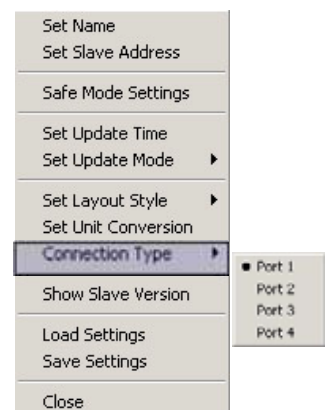
Saves the current Slave to PC. Select "Save Settings" and press OK.

5.13 CLOSE (close the slave)

This will close only the individual slave, not the whole program. In the event that the slave has not be saved, the program asks “Are you sure you want to close slave? Select Yes / No.” However, it is recommended to either save the individual slave or the whole workspace (File-Save Workspace...)

5.14 CLOSE (close the I-LINK PC Pro Program)

Select FILE – EXIT. If any of the slaves are still open, the program asks “Are you sure?” Select Yes /No.



5.15 SAVE ALL SLAVES

Select FILE - "Save All", select path and save. This function will save all slaves using their current names.

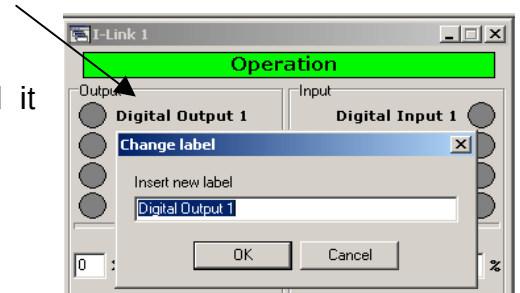
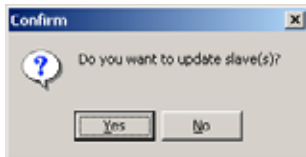
5.16 LOAD ALL SLAVES

Select FILE - "Load Slave(s)" and open the file. Because the information of the now loaded slave may be different from what it currently is, the program asks "Do you want to update slave(s)? Select Yes / No".

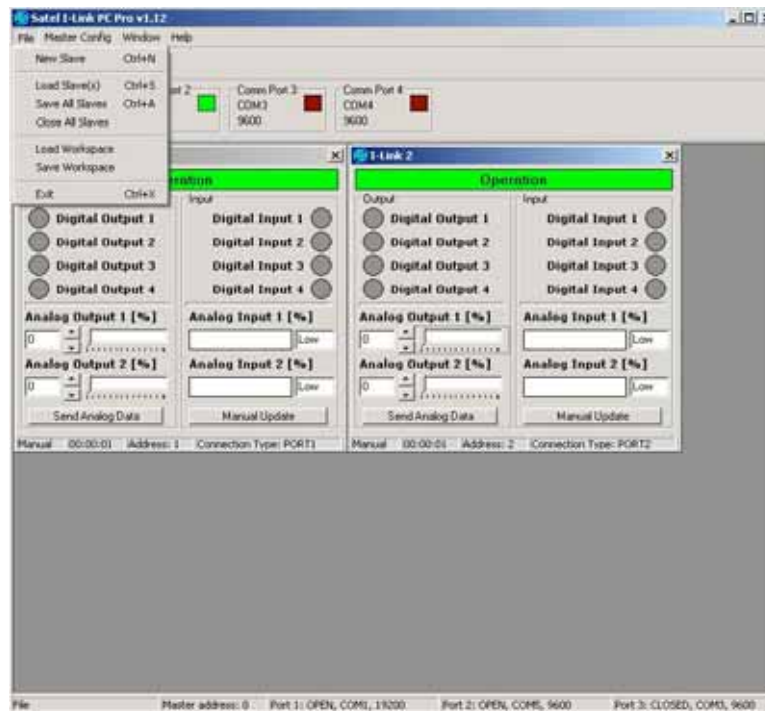
5.17 EDIT

Changing of the Input / Output names

Click normally at the name that you want to change and it opens for editing. Make the changes and press ok.



6 FILE-menu



6.1 NEW SLAVE

Opens a new slave on the main window.

6.2 LOAD SLAVE(s)

Loads a saved slave from the file.

6.3 SAVE ALL SLAVES

Saves all slaves to the file.

6.4 CLOSE ALL SLAVES

Closes all slaves from the window.

6.5 LOAD WORKSPACE

Loads the whole workspace from the file. When the saved workspace is loaded from the file, the program will not automatically start its operation, even though the saved workspace had auto boot and auto time setting. For security reasons the program will start on manual mode.

PC Pro Program will start automatically only, if the auto boot has been activated and the PC has gone through an abnormal shut down i.e. power failure etc.

6.6 SAVE WORKSPACE

Loads the whole workspace to the file. Recommended feature. When done the all settings, such as names, routings, times etc., will be saved.

6.7 EXIT

Closes the I-LINK PC Program.

7 MASTER CONFIG-menu

In this part are explained most of the settings that have an effect on the program functions.

7.1 COM-PORTS 1...8

In case you have different frequencies or you want to connect SATELLINK -products directly to your PC, you can use eight (8) different COM ports. The usage of multiple COM ports makes it possible to build up several systems and different combinations for one PC-Pro program.

7.1.1 Open new Com-Port

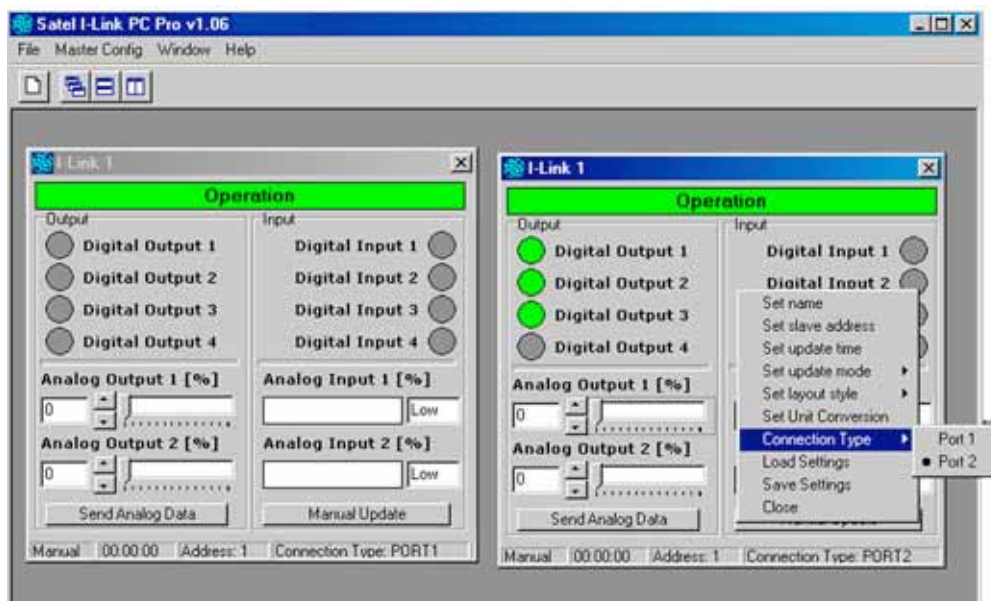
On the top bar, click the "Master Config". Open the port that you want to use. Both ports can be used for similar operation. Note that you cannot use two COM ports to drive same slave.

7.1.2 How to use Com-Ports

Open new slave. Click anywhere on the empty table of the selected slave by using the right mouse button, click on "Connection Type" and select new port.

New COM port can be connected directly to I-LINK 100 (even without modem), with a special null-modem cable D9f/D15f or normally with SATELLINE radio modems. If needed the radio modems can use different frequencies in each COM port.

Routing the I-LINK 100 inputs from one COM port to another COM port is also possible.



7.2 SET MASTER ADDRESS

As default this is 0. If needed to change, type new number and press ok.

7.3 SETTINGS

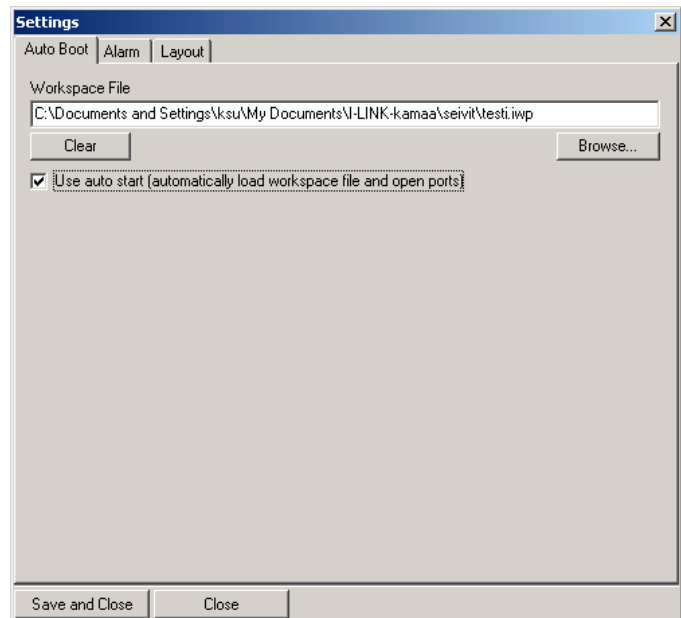
7.3.1 Auto Boot

When using this feature, the computer will automatically start the PC Pro Program after an abnormal shut down i.e. power failure etc.

7.3.2 Activation

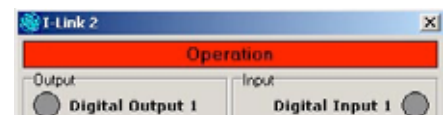
When all names and routings etc. are done, go to File-menu → Save Workspace, name it and save it.

1. Go to Master Config → Settings, Browse and select the above root, and press Open. To enable the process select Use auto start, Save and Close.
2. Copy the I-LINK PC Pro-program **shortcut** also to Windows Startup-directory.



7.4 ALARM

If there will be a failure in transmission, the “Operation” text in the slave window turns to red. The alarm settings can be used to customise the alarm handling.

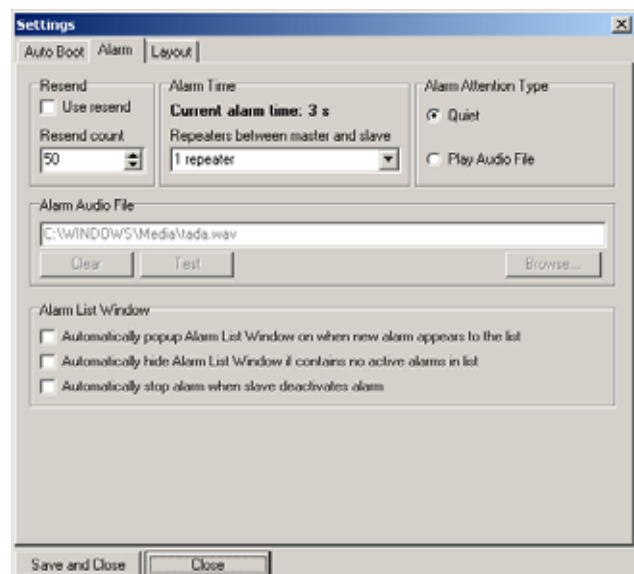


7.4.1 Activation

Go to Master Config → Settings → Alarm.

7.4.2 Resend Count

In case of failure in transmission, the program will make resendings according to this setting. Sets the number of resendings before the Alarm will be lit. If there are occasional Alarms due to possible radio interference, it is recommended to set this number to 3...5 (maximum 50). Set the number and activate by checking the “Use resend” box.



7.4.3 Alarm Time

Repeaters in the system will prolong the signals transmission time. If you have repeaters connected in the system, select the number and save settings.

7.4.4 Alarm Attention Type

The alarm type can be quiet or audible. In case of audible alarm, click "Play Audio File", browse a wav-file (for example C:\WINDOWS\Media\tada.wav) and click "Open". For clearing or testing click the respective buttons.

7.4.5 Alarm List Window

1. Automatically popup "Alarm List" window when new alarm appears to the list.

The alarm list will pop up immediately when an alarm occurs. The alarms can be stopped by pressing "Stop Alarm" or closed by pressing "Close".

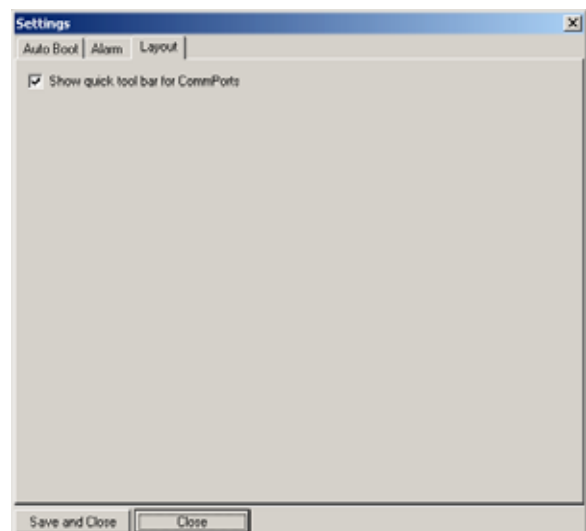


2. Automatically hide "Alarm List" window if contains no active alarms in list. The window will disappear when the alarms are finished.

3. Automatically stop alarm when slave deactivates alarm. The "Alarm List" window stays, but the alarms will be stopped.

7.5 LAYOUT

Selecting "Show quick toolbar for CommPorts", will add a CommPort monitoring table on the main window as shown below. Settings table for the ports can be opened by clicking the square button.



8 WINDOW-menu



List of selections

8.1 SHOW ACTION LOG

Time	Slave	Port	Value [mA]	Value [Converted]
2.3.2005 15:28:02	I-Link 2	Extension 1->Analog Input 2	21,39	High
2.3.2005 15:29:09	I-Link 2	Extension 1->Analog Input 2	21,44	High
2.3.2005 15:29:13	I-Link 2	Extension 1->Analog Input 2	21,41	High
2.3.2005 15:29:17	I-Link 2	Extension 1->Digital Input 1		1
2.3.2005 15:29:17	I-Link 2	Extension 1->Digital Input 2		1
2.3.2005 15:29:17	I-Link 2	Extension 1->Analog Input 2	21,40	High
2.3.2005 15:29:21	I-Link 2	Extension 1->Digital Input 3		1
2.3.2005 15:29:21	I-Link 2	Extension 1->Analog Input 2	21,39	High

The actions of the I-LINK 100s can be seen by opening the window “Action Log”. All I-LINKs can be monitored separately.

8.1.1 Save Log

Saves recorded log to file. The recording is done so, that it can be easily opened with for example Windows Excel, enabling sorting etc.

8.1.2 Clear Log

Clears the recorded log in the window.

8.1.3 Clear Log File

Clears the log in the file

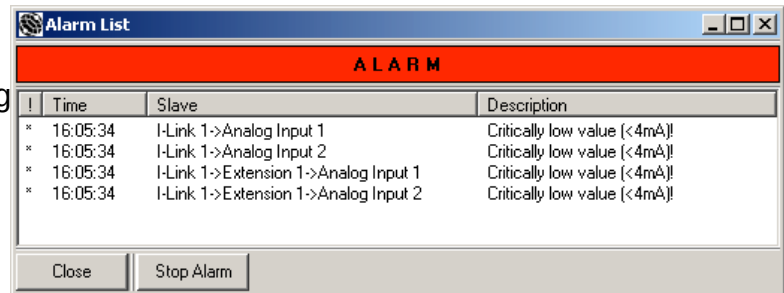
8.1.4 Stream to file

Records the log directly to file.

8.2 SHOW ALARM LIST

Shows all alarms that have occurred.

The alarms can be stopped by pressing “Stop Alarm”.



8.3 SHOW ROUTE LIST EDITOR

More information about this in Chapter 9.

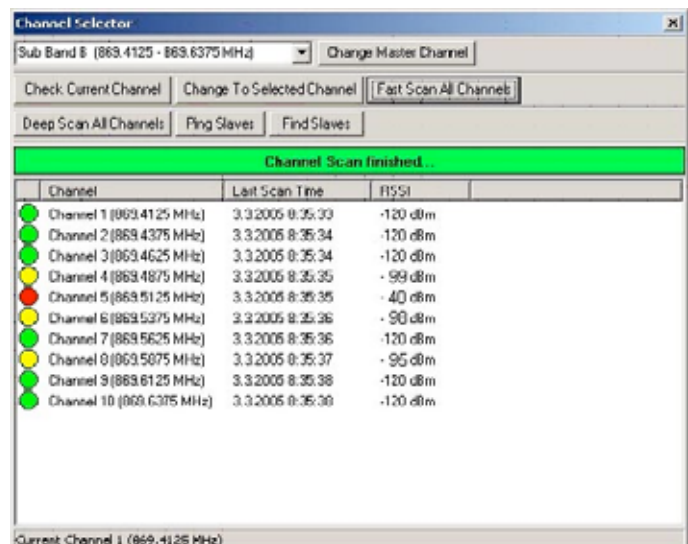
8.4 SHOW CHANNEL SELECTOR

NOTE! Can be used only together with SATELLINE-1870 radio modems.

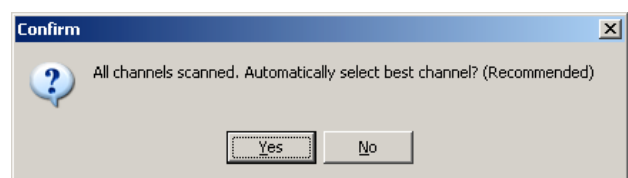
This feature makes it possible to scan channel quality, change channels, find and ping slaves etc.

1. When the program is opened first time, it shows “Your current channel is not known and therefore all the scan controls are unavailable.....” Press Yes.

2. The program will show you the current operational channel at the bottom bar. The next information tag is “Scan all channels?(Recommended)”. Press Yes. As a result of the scan there will be a list of the channels with dBm-signal strength information. This dBm tells the possible interference i.e. “quality” of the channels. The best value is -120 dBm (the bigger the better).



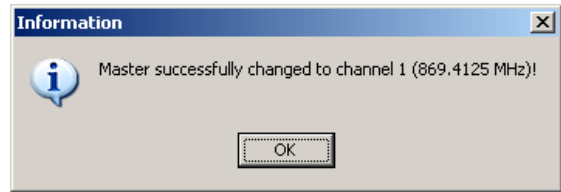
3. The program shows “All channels scanned. Automatically select best channel? (Recommended)”. Press Yes.



4. If your current channel is good to be used and free from interferences the colour of the channel button is green and the channel will not be changed.
5. If there is some interference and the current channel is **not** good to be used the colour of the channel button is yellow (medium interference) or red (strong interference). Press “Yes”, and the program will automatically set the system to operate on the new channel.

8.4.1 Change Master Channel

Select a channel from the list (1...9) and change master channel. Please note, now the master unit has probably different channel than the slaves.



8.4.2 Check Current Channel

Shows the current channel number and frequency of the SATELLINE-1870 radio modem which is currently connected to the COM port. The result is shown at the bottom bar.

8.4.3 Change To Selected Channel

This function changes all channels (master and slaves) to the selected channel. Select the channel that you want to use and press "Change to Selected Channel". Answer "Yes" and now all units will be changed to the new channel. The progress can be seen on the green bar.

8.4.4 Fast Scan All Channels

Scanning of the channels shows information about the quality. Fast scan takes a few samples of the channels before showing the quality in the display.

8.4.5 Deep Scan All Channels

Same as above, but takes 10 times more samples.

8.4.6 Ping Slaves

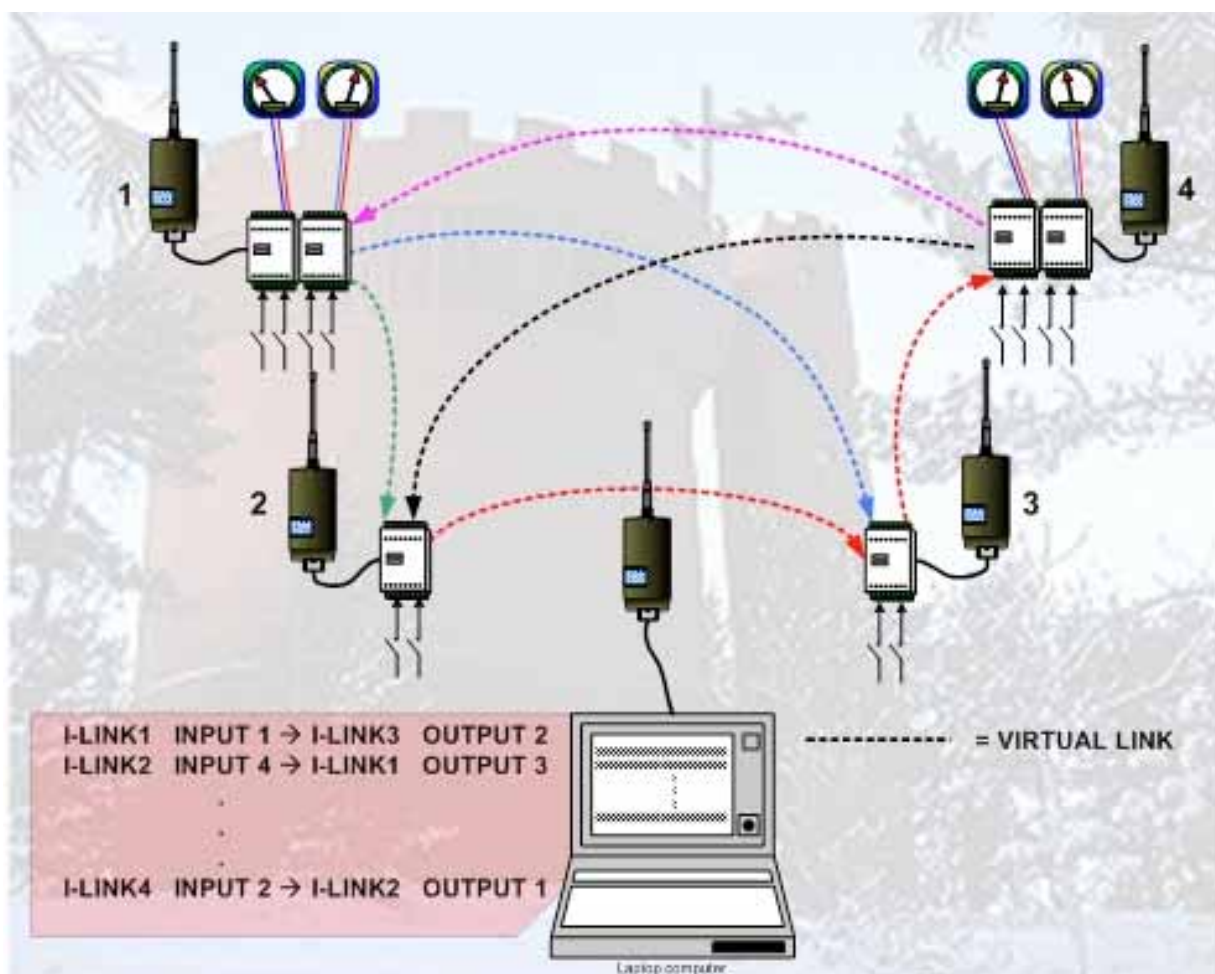
This function makes it possible to check I-LINK 100 slaves connected to SATELLINE-1870 radio modem, which are on the same channel.

8.4.7 Find Slaves

This function makes it possible to find all I-LINK 100 slaves connected to SATELLINE-1870 radio modem, regardless of their channel or frequency.

9 ROUTING

With this feature any of the slave's digital/analogue input can be routed to any digital/analogue output. You can even route any one of the inputs to several or all outputs. This feature is useful for example emergency multi-alarm e.g. routing is done by the PC - program, which virtually connects the inputs to the defined outputs. The input can be connected to the any output or to the same I-LINK 100...300. You may thus use this as switch isolator, current converter and voltage converter from 12 - 24 VDC to 230 VAC etc. Analogue inputs can also be routed to analogue outputs.



9.1 START

Route List Editor is possible only for those slaves that are opened by the program. So, open first all I-LINK 100 slaves, which you have on the system. If you have any extension units connected, press **Manual Update** of the respective slave to get these extensions activated and shown on the screen.

9.1.1 Route List Editor

The routing can be configured using the **Route List Editor** - programme. Click **Window** on the main menu and then click **Show Route List Editor**. Now you've opened an empty block where you have "Source Ports" and "Target Ports".

9.1.2 New Route

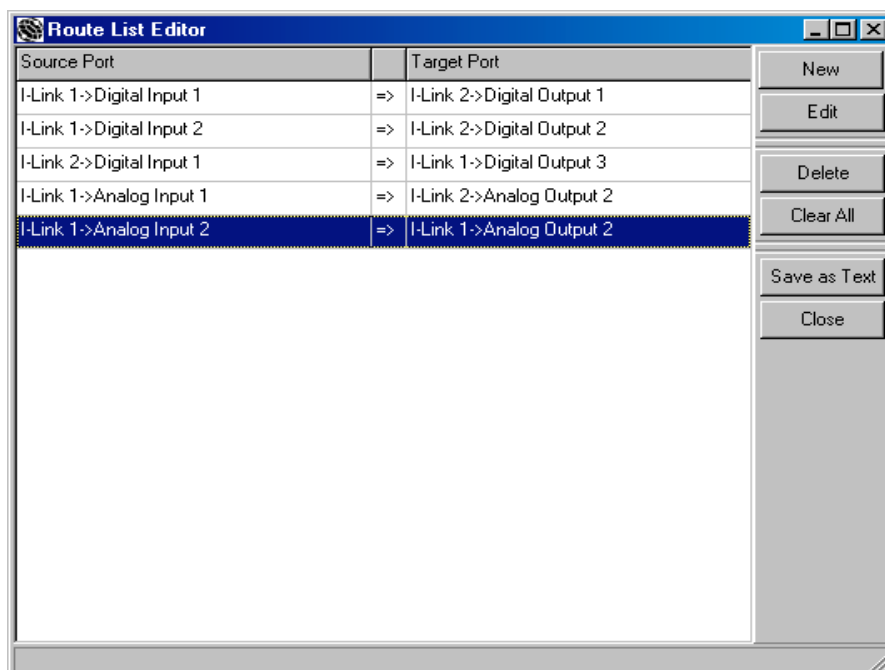
When you've opened the "Route List Editor", click **New** and you'll get "Select Source" and "Select Target" drop down list.

Click on the drop down arrow of the "Source Port" and select any listed input that you want to route to any output.

Click on the drop down arrow of the "Target Port" and select any listed output that you want the input to be routed.

To accept the selection, click OK. As an indication of the change, there will be **R** in the respective buttons on the main window.

To create more routes, click **New**.



9.1.3 Edit

If you need to edit either the input or output selection, put the cursor on the selection and make the necessary changes.

9.1.4 Delete

Deletes the highlighted selection.

9.1.5 Clear All

Clear the whole routing list.

9.1.6 Save as Text

Saves the route list as a text-file. For better reading the route list can also be saved as an Excel-file. As a back up, it is preferred that you save and print the route list.

Note! In case of a computer failure or shut down, it is recommended that you save the setting. The saving should be done at File--> Save Workspace etc.

9.1.7 Close

Closes the route list window. The route list information will stay as long as the computer is running.

9.1.8 Reminder

1. A change in the input is routed when an update occurs. The update can be time based, manual or auto.
2. Those inputs, which are not routed, can be used normally.
3. Routing can also be done to those I-LINK 100 which are connected to PC's COM ports directly.

10 INDICATORS

10.1 ADJUSTABLE SETTINGS

Object	Action	Outcome	Outcome	Outcome
Operation	Status of the operation	Green = OK	Red = Fail	Yellow = operating
Digital Output	State of the outputs	Green = ON	Grey = OFF	Yellow = operating
Digital Input	State of the inputs	Green = ON	Grey = OFF	
Analog Output	The output level in %	0 = 4mA	100 = 20mA	
Analog Input	The input level in %	Yellow = 0-25%	0 – 4mA	Low limit = yellow
		Green = 25-100%	4- 20mA	Between limits = green
		Red = 100 -125%	20 - 25mA	High limit = red

10.2 BOTTOM BAR, Slave

TEXT	Function
Manual or Auto	Shows the analog input update selection
“00:00:00”	Shows the analog input update time
Address:	Shows the address of the slave
Connection Type	Shows which ports are used

10.3 BOTTOM BAR, Master

TEXT	Function
Master address	Shows the master address
Port1 Port4	Shows the status, COM number, speed of the ports

11 FACTORY SETTINGS AND ACCESSORIES

The I-LINK 100 I/O-converter is shipped with the following default settings (unless specifically ordered with settings other than those listed below):

FIXED SETTINGS DEFINED AT THE TIME OF ORDER		
PRTCL, protocol -switch	P-to-P	= Point-to-point
ADDRESS	0000000	
BAUD	01	= 9.6kb/sec
SF, DE, HS	000	
TIME	000	= 120 minutes

11.1 ACCESSORIES

11.1.1 Interface Cables for SATEL I-LINK 100

CONNECTION	TYPE	RADIO MODEM	CABLE
Point-to-Point	I-LINK 100	SATELLINE-2ASc, 2ASxE, 3AS-series	CRS-TSU
Point-to-Point	I-LINK 100	SATELLINE-1870	CRS-18IF
Multipoint	PC	SATELLINE-2ASc, 2ASxE, 3AS-series	CRS-2F
Multipoint	PC	SATELLINE-1870	CRS-18F

11.1.2 Extension units I-LINK 200 and 300

Three pieces of extension units can be connected to any I-LINK 100 in any order.
I-LINK 200 includes two analogue and four digital I/O-ports.
I-LINK 300 includes six digital I/O-ports.



12 CONNECTION EXAMPLE

